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27 September 2005 Amendment
Responsive to 27 June 2005 Office Action

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IN THE SPECIFICATION:

Please replace the last full paragraph on page 1 of Applicant's specification with the following clarified paragraph:

In the method of using an analytical plotter, two images photographed with parallax are estimated and aligned to generate a stereo image. Then, an operator extracts a building polygon shape from the stereo image by a handle operation (see, for example, Ujihisa Kimoto, ~~"Actuality of photogrammetry"~~ "Practice Of Photogrammetry", Sankaido, P.91-97).

After the last line of page 29 of the specification, please insert the following two additional paragraphs:

According to all of the foregoing, the present invention may be practiced as a program (see, e.g., flowcharts of FIGS. 4, 5 and 7) for causing a computer to execute a map generation method, the method including: receiving user appointment of at least one position in a building existing within an aerial photograph, to designate the at least one position as part of a building region; extracting pixels corresponding to an extracted building region based on a result of discriminating a color around the at least one position, and extracting a polygon line of the extracted building region; and generating a vector of the polygon line of the extracted building region. Other operations may be included, e.g.: analyzing colors around the at least one position to determine sample colors for discriminating, a

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discrimination threshold, and a region searching range; extracting building region pixels based on a result of discriminating a similarity between a color of a roof of a building in the region searching range and the sample colors for discriminating, and extracting a line around the extracted building region pixels as the polygon line.

Another program embodiment may include: extracting pixels largely different in color from adjacent pixels as edge pixels, and determining boundary lines based on the edge pixels; and expanding the extracted building region to the boundary lines to correct the extracted building region. Another may include: rotating the extracted building region so as to set the polygon line of the extracted building region in a predetermined axis direction; and smoothing the polygon line after the rotation. In another alternative embodiment, in a case where the polygon line extracted corresponds to a predetermined linking pattern, the program may effect correcting the polygon line to one of a straight line and lines crossing each other at a predetermined angle. As another variant, in a case where a line of a building roof corresponds to a predetermined integration pattern, the program may effect integrating the extracted building region so as to include the line; and integrating the building region including a plurality of inputted positions. Still further, in a case where the aerial photograph shows a building obliquely, the program may effect correcting distortion due to a height of the building, and projecting a building polygon shape on a ground.